

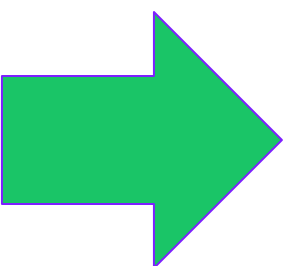
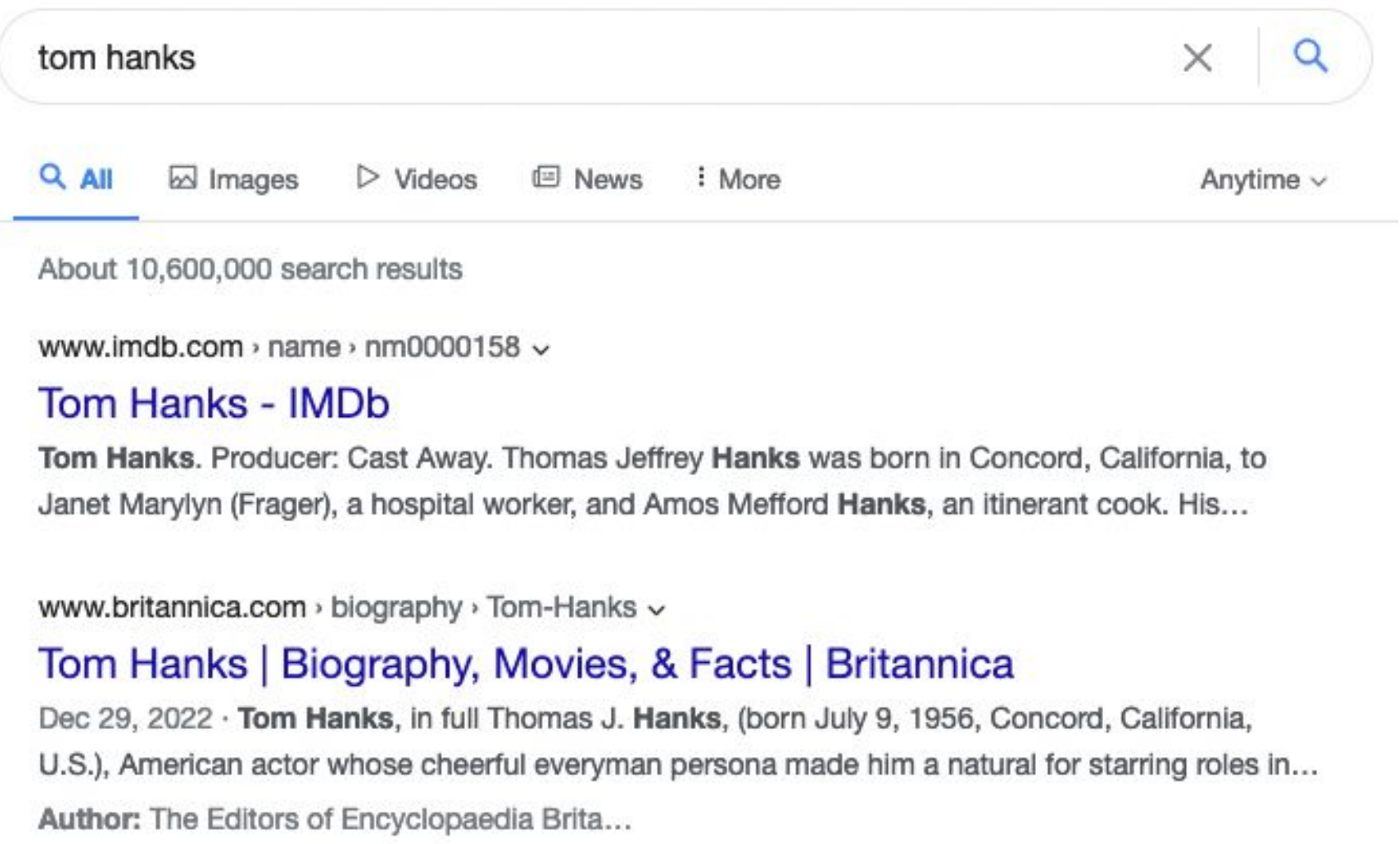
Entity exploration by the Web Search results

Using search result URLs to improve the entity recognition

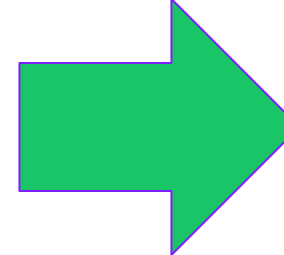
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Background and motivation

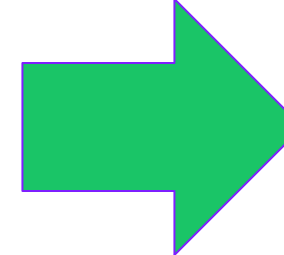
- For entity-based queries (ex. “tom hanks”), Yahoo Search results can be used to identify the entity from the input query
- From Yahoo Knowledge (YK) entity data, generate YK normalized URL to YK Entity datapack
- Join the normalized URLs to get the entity candidates during runtime
- Use the entity candidates to improve Entity Module Triggering and show related entities for ambiguous queries



1. <https://www.imdb.com/name/nm0000158/>
2. <https://www.britannica.com/biography/Tom-Hanks>
3. <https://www.imdb.com/name/nm0000158/bio>
4. https://en.wikipedia.org/wiki/Tom_Hanks
5. https://en.wikipedia.org/wiki/List_of_Tom_Hanks_performances



URL to YK Entity



Name: Tom Hanks
Entity Type: Actor

Experiment on Entity Triggering

We use entity candidates as a triggering feature to show the entity module in the search result page of US and UK markets. From the metrics of bucket tests, we see increasing coverage of module triggering in both markets. Meanwhile, insignificant CTR change for US and less CTR in UK (*: but total click number has increased)

Intl	Desktop		Mobile		GA
	Coverage	CTR	Coverage	CTR	
US	+1.2%	-0.4%	+1.9%	-0.1%	05/03/2022
UK	+14.1%	-10.0%*	+22.0%	+5.5%	01/18/2023

Experiment on Ambiguous Entity Detection

For ambiguous query, those entity candidates are used in the disambiguation module. From the bucket test, the metrics show the great improvement.

Intl	Desktop		Mobile		GA
	Coverage	CTR	Coverage	CTR	
US	+280%	+20%	+220%	+12%	12/14/2022